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PATENT  
2005-1030

**IN THE U.S. PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re application of	Appeal Docket No.
Yuri SHEFLER	Conf. 9618
Application No. 10/530,202	Group 1781
Filed November 1, 2005	Examiner Vera Stulii
VODKA AND A PROCESS FOR THE PRODUCTION OF VODKA	

**APPEAL BRIEF**

MAY IT PLEASE YOUR HONORS:

**(i) Real Party in Interest**

The real party in interest in this appeal is the assignee, SPIRITS PRODUCT INTERNATIONAL INTELLECTUAL PROPERTY B.V. of Oranjestad, the Netherlands.

**(ii) Related Appeals and Interferences**

None.

**(iii)      Status of Claims**

Claims 10-23 remain pending, from whose final rejection in the Office Action of November 16, 2009 ("Official Action") this appeal is taken.

Claims 1-9 were cancelled.

**(iv)      Status of Amendments**

The claims, which were last amended in the Amendment filed August 5, 2009, are set forth in the Claims Appendix.

**(v)      Summary of the Claimed Subject Matter**

The claimed subject matter, as described in the independent claims 10, 12 and 18, is as follows:

Claim 10 describes a vodka comprising:

a percentage of absolute alcohol in water of about 35-50 vol %,

4-6 mM sugar,

0.05 - 0.2 mM of bicarbonate,

0.02-0.04 vol % of extract of flax seeds, and

wherein said vodka has an amount of impurities per liter of absolute alcohol in an amount as follows:

acetic aldehyde lower than 3 mg,

fusel oil lower than 6 mg,

ester lower than 5 mg,

methy1 alcohol lower than 0.2 ml, and  
an alkalinity characteristic of less than 3 meq.

*(Specification page 3, line 20 to page 4, line 1.)*

Claim 12 describes a process for preparing vodka,  
comprising:

mixing water and absolute alcohol to obtain a mixture,  
treating the mixture with activated coal,

*(Specification page 4 lines 22-25.)*

adding sugar, aroma compounds and optionally other  
ingredients,

*(Specification page 4 lines 32 to page 5, lines 1 and 3.)*

cooling the mixture to a temperature of about -10°C to  
-15°C, at which temperature the mixture is maintained for about  
4-8 hours,

filtering the mixture,

adapting the mixture to room temperature to obtain  
a filtrate,

*(Specification page 4 lines 25-32.)*

optionally adding other ingredients to the filtrate, and  
optionally further filtering the filtrate at room  
temperature before bottling said filtrate.

*(Specification page 4 lines 32 to page 5, line 5.)*

Claim 18 describes a process for preparing vodka,  
comprising:

mixing water and absolute alcohol to obtain a mixture,  
treating the mixture with activated coal followed by  
filtration,

*(Specification page 4 lines 22-25.)*

adding sugar, aroma compounds and optionally other ingredients to  
the mixture,

*(Specification page 4 lines 32 to page 5, lines 1 and 3.)*

wherein, the mixture after the treatment with activated coal is  
cooled to a temperature of about -10°C to -15°C, at which  
temperature the mixture is maintained for about 4-8 hours, after  
which the mixture is filtered, and gradually adapted to room  
temperature,

*(Specification page 4 lines 25-32.)*

optionally aroma and other ingredients are added to the mixture, and optionally the mixture is filtered again before bottling a resulting mixture.

*(Specification page 4 lines 32 to page 5, line 5.)*

**(vi) Ground of Rejection to be Reviewed on Appeal**

Whether claims 10-23 were properly rejected under 35 U.S.C. § 103(a) as being obvious over JAMNIKOV RU 2,044,045 (JAMNIKOV) in view of BOBRY SHEV RU 2,175,010 (BOBRY SHEV) and FILIPPOVA et al. US 5,618,573 (FILIPPOVA).

**(vii) Arguments**

None of claims 10-23 is rendered obvious over JAMNIKOV in view of BOBRY SHEV and FILIPPOVA.

The claims are argued separately according to the subheadings below.

**Claim 10**

Independent claim 10 describes a high quality vodka composition, which includes specific amounts of sugar, flax seed, and bicarbonate, and levels of impurities. However, none of JAMNIKOV, BOBRY SHEV and FILIPPOVA discloses or suggests the claimed amounts of (a) impurities, (b) sugar and (c) bicarbonate for the reasons below:

(a) The claimed low levels impurities.

As disclosed in the present specification beginning at line 18, page 1, due to sugar settling on the surface of the activated coal used for filtration, vodka produced by previously known methods include residual traces of fusel oils.

The presently claimed vodka, however, has a minor amount of impurities per liter of absolute alcohol. These claimed impurities level included lower than 6 mg/l of fusel oil, lower than 3 mg/l acedic aldehyde, lower than 5 mg/l ester, lower than 0.2 ml/l methyl alcohol, and an alkalinity characteristic of less than 3 meq.

JAMNIKOV, BOBRY SHEV and FILIPPOVA fail to disclose or suggest these claimed amount of impurities, or their absence.

(b) The claimed 4-6 mM sugar.

BOBRY SHEV was offered for teaching the sugar component. In particular, the Examiner noted that BOBRY SHEV teaches a specific combination of ingredients, e.g., flax seed, sugar and ascorbic acid, to provide a pleasant flavor (The Official Action, first full paragraph of page 7).

However, the concentration of sugar taught by BOBRY SHEV is less than that claimed, i.e., 2.5-3.6 mM (only 5.5-6.5 kg of fructose, which has a molecular weight of 180.6 g/mol, per 1000 decaliters of vodka).

To remedy this shortcoming of BOBRY SHEV, the Examiner stated that it would have been obvious to adjust the amount of components for taste (e.g., at the end of the first full paragraph of page 7 of the Official Action). However, such a modification would not have achieved the pleasant flavor by BOBRY SHEV.

BOBRY SHEV discloses a particular ratio of fructose, ascorbic acid and flax seed that achieves a synergistic effect for a 40% alcohol vodka: a pleasant aroma-forming complex with ethyl alcohol esters, a mild taste and typical vodka aroma (See the English Abstract). This ratio includes 0.035-0.045 vol% flax seed extract( i.e., 3.5-4.5 liter per 1000 decaliter of vodka) and 2.5-3.6 mM of sugar. Accordingly, one would not have expected to achieve the desired aroma and flavor by increasing the sugar to 4-6 mM.

Thus, the combination fails to teach or suggest the claimed sugar content.

(c)The claimed 0.05 - 0.2 mM of bicarbonate.

None of JAMNIKOV, BOBRY SHEV and FILIPPOVA mentions bicarbonate, or suggest its addition.

The Examiner acknowledged that "JAMNIKOV is silent to the amount of bicarbonates in vodka", but the Examiner's position was that bicarbonate is intrinsically present in the water used for preparing vodka.

While some known water supplies may comprise an amount of bicarbonate, there is no evidence that bicarbonate would be present in the vodka of JAMNIKOV.

Indeed, to the contrary, JAMNIKOV and BOBRY SHEV teach pretreating water by reverse osmosis for the purpose of demineralization. JAMNIKOV discloses that pretreated water used to make the vodka may comprise calcium, magnesium, copper, aluminum, silicium, sulfates, chlorides and phosphates (Page 3, right column, lines 19-27), not bicarbonate. Thus, if there were any bicarbonate in the water, one of ordinary skill in the art would not have expected it to be present in the resulting vodka, as there is no mention of it after the water pre-treatment, or demineralization step. Accordingly, the combination fails to disclose or suggest the recited amount of bicarbonate.

Therefore, as the vodka composition of claim 10 is not obvious in view of the applied references, and the rejection should be reversed.

#### **Claim 11**

Claim 11 further specifies that the vodka contains a percentage of absolute alcohol in water of about 40 vol %, 5.3 mM of sugar, 0.12 mM of sodium bicarbonate, and 0.032 vol % of extract of flax seeds.

As discussed above relative to claim 10, the combination fails to teach or suggest any specific amount of



sodium bicarbonate, e.g., 0.12 mM as recited in claim 11, and a concentration of sugar that falls with the range defined in claim 10, e.g., 5.3 mM as recited in claim 11.

Moreover, the combination fails teach the claimed amount of flax seeds recited in claim 11, or suggest approaching the claimed amount of flax seeds and the claimed concentration of sugar.

As noted above relative to claim 10, BOBRY SHEV requires a particular ratio of fructose, ascorbic acid and flax seed in a 40% alcohol-based vodka to achieve the desired synergistic effect, i.e., a pleasant aroma-forming complex with ethyl alcohol esters, a mild taste and typical vodka aroma. This combination requires 0.035-0.045 vol% flax seed extract (more than 0.032 vol% recited in claim 11) and 2.5-3.6 mM of sugar (less than 5.3 mM recited in claim 11). That is, the ratio of the concentration of sugar to the volume percentage of flax seed extract may be anywhere from 2.5:0.045 to 3.6:0.035 (or 55.6: 1 to 102.9: 1).

The claimed 5.3 mM sugar and 0.032 vol% flax seed extract, however, fall outside of this required ratio, i.e., 165.6:1. Accordingly, one would have been discouraged from approaching the claimed vodka composition, as the desired flavor and aroma taught by BOBRY SHEV would not be achieved.

Therefore, claim 11 is not obvious in view of the applied references, and the rejection of claim 11 should be reversed.

**Claims 12 and 14-16**

Independent claim 12 is directed to a process for preparing vodka, which includes the steps of:

- (a) treating a mixture of water and alcohol with activated coal, and
- (b) cooling the mixture to a temperature of  $-10^{\circ}\text{C}$  to  $-15^{\circ}\text{C}$ , which is maintained for about 4-8 hours.

Indeed, by cooling the mixture for the recited time and temperature, one is able to obtain a good separation of impurities from the mixture. To allow for a complete separation of the impurities from the water-alcohol mixture, the mixture according to the claimed process is filtered after cooling to remove the crystalline film. This results in a vodka with minor amounts of impurities and improved organoleptic parameters.

The proposed combination fails to teach or suggest these steps for the reasons outlined below.

(a) The claimed activated coal treatment step.

JAMNIKOV fails to teach an activated coal treatment step. Instead, JAMNIKOV replaces an active coal filtration step by a cooling step to  $-4^{\circ}\text{C}$  to remove impurities. See, e.g., page 3, left column, last line.

BOBRY SHEV fails to teach an activated coal treatment.

FILIPPOVA teaches cooling a mixture and an activated coal treatment at the cooling temperature, e.g., the first treatment step as described in the summary of the invention.

However, to even approach the claimed invention would have been contrary to the very purpose of JAMNIKOV, i.e., purification by cooling, and, thus, one of ordinary skill in the art would have been discouraged from adding active coal filtration step to JAMNIKOV.

(b) The claimed cooling step.

JAMNIKOV fails to teach a freezing step below  $-4^{\circ}\text{C}$ .

BOBRYSHEV fails to teach any cooling.

FILIPPOVA fails to teach a cooling step as claimed. FILIPPOVA teaches cooling a mixture for a first treatment step from anywhere  $-45^{\circ}\text{C}$  to  $-22^{\circ}\text{C}$  (no holding time is mentioned) and filtering over activated coal for 0.5 to 5 minutes at this same temperature. In a second treatment step, the mixture's temperature is  $-22^{\circ}\text{C}$  to  $5^{\circ}\text{C}$  (no holding time mentioned) and over activated coal for 0.5 to 10 minutes at  $-22^{\circ}\text{C}$  to  $5^{\circ}\text{C}$ . See, e.g., column 2, line 28 to column 3, line 10.

Thus, the combination fails to teach cooling to  $-10^{\circ}\text{C}$  to  $-15^{\circ}\text{C}$  for about 4-8 hours.

Moreover, there is no suggestion to approach the claimed cooling step by "suspending" either the first treatment or the second treatment of FILIPPOVA at  $-10^{\circ}\text{C}$  to  $-15^{\circ}\text{C}$  for 4-8

hours. That is, there would have been no reason to increase a cooling time to 4-8 hours at a temperature range outside of the first treatment of FILIPPOVA, a temperature somewhere within the range of the second treatment suggested by FILIPPOVA, or a temperature far lower than that suggested by JAMNIKOV (e.g., -4°C).

Therefore, the combination fails to render obvious claimed invention, and the rejection of claims 12 and 14-16 should be reversed.

### **Claim 13**

Claim 13 further recites that the filtrate obtained in claim 12 is adapted to room temperature by pumping the filtrate to a non-isolated tank until room temperature has been attained.

JAMNIKOV teaches "natural heating to ambient temperature", but does not disclose pumping the filtrate to a non-isolated tank until room temperature has been attained.

FILIPPOVA discloses raising the temperature during filtering to about 20°C, but does not teach the filtrate obtained is adapted to room temperature by pumping the filtrate to a non-isolated tank until room temperature has been attained.

Thus, as the combined references fails to teach or suggest this step, the rejection of claim 13 should be reversed.

**Claim 17**

Claim 17 further recites that the filtrate of claim 13 is further filtered over a series of micro filters before bottling.

As noted above relative to claim 13, the combination fails to teach or suggest adapting a filtrate to room temperature by pumping the filtrate to a non-isolated tank until room temperature has been attained.

Moreover, none of the cited references mention a further filtration step over a series of micro filters before bottling after room temperature has been achieved. JAMNIKOV conducts a final filtering step, followed by natural heating to ambient temperature and bottling (See Abstract). BOBRYSEV is silent to a bottling step relative to any cooling, heating or filtering step. FILIPPOVA simply "collects" purified ethyl alcohol solution after a final filter step below ambient, e.g., in claim 1 of FILIPPOVA.

Therefore, as this feature is neither disclosed nor suggested by the cited references, the rejection of claim 17 should be reversed.

**Claims 18 and 20-22**

Independent claim 18 is directed to a process for preparing vodka, which includes:

- (a) treating a mixture of water and alcohol with activated coal, and
- (b) cooling the mixture after treatment with activated coal to a temperature of  $-10^{\circ}\text{C}$  to  $-15^{\circ}\text{C}$ , which is maintained for about 4-8 hours.

The recited cooling time and temperature provide a good separation of impurities from the mixture. To allow for a complete separation of the impurities from the water-alcohol mixture, after the about 4-8 hours of cooling, the mixture according to the claimed process is filtered to remove the crystalline film. This results in a vodka with minor amounts of impurities and improved organoleptic parameters.

Moreover, the "pretreatment" with activated coal prior to deep freezing the water-alcohol solution, as recited in claim 18, was found to be adequate for a separation of the remaining impurities. Extreme cooling to even lower temperatures below  $-15^{\circ}\text{C}$  is, therefore, not required to obtain a vodka with minor amounts of impurities and improved organoleptic parameters.

The proposed combination of references fails to teach or suggest these steps for the reasons outlined below.

(a) The claimed activated coal "pretreatment".

JAMNIKOV fails to teach either an activated coal treatment. Indeed, JAMNIKOV replaces an active coal filtration

step by a cooling step to  $-4^{\circ}\text{C}$  to remove impurities. See, e.g., page 3, left column, last line.

BOBRYSHEV fails to teach an activated coal treatment.

FILIPPOVA fails to treat a pretreatment with activated coal before cooling step. Each treatment of FILIPPOVA involves filtering a "cooled" solution. See, e.g., the summary of the invention.

Nevertheless, to even approach the claimed invention would have been contrary to the very purpose of JAMNIKOV, i.e., purification by cooling, and, thus, one of ordinary skill in the art would have been discouraged from adding active coal filtration step to JAMNIKOV.

(b) The claimed cooling step.

JAMNIKOV fails to teach a freezing step below  $-4^{\circ}\text{C}$ .

BOBRYSHEV fails to teach any cooling.

FILIPPOVA fails to teach a cooling step as claimed. FILIPPOVA teaches cooling a mixture for a first treatment step over activated coal for 0.5 to 5 minutes at  $-45^{\circ}\text{C}$  to  $-22^{\circ}\text{C}$  and a second treatment step over activated coal for 0.5 to 10 minutes from about  $5^{\circ}\text{C}$  to  $20^{\circ}\text{C}$ .

Thus, the combination fails to teach cooling to  $-10^{\circ}\text{C}$  to  $-15^{\circ}\text{C}$  for about 4-8 hours.

Moreover, there is no suggestion to approach the claimed cooling step by "suspending" either the first treatment

or the second treatment of FILIPPOVA at -10°C to -15°C for 4-8 hours. That is, there would have been no reason to increase a cooling time to 4-8 hours at a temperature range outside of the first treatment of FILIPPOVA, a temperature somewhere within the range of the second treatment suggested by FILIPPOVA, or a temperature far lower than that suggested by JAMNIKOV (e.g., -4°C).

Therefore, the combination fails to render obvious claimed invention, and the rejection of claims 18 and 20-22 should be reversed.

**Claim 19**

Claim 19 further recites that the filtrate obtained in claim 18 is adapted to room temperature by pumping the filtrate to a non-isolated tank until room temperature has been attained.

JAMNIKOV teaches "natural heating to ambient temperature", but does not disclose pumping the filtrate to a non-isolated tank until room temperature has been attained.

FILIPPOVA discloses raising the temperature during filtering to about 20°C, but does not teach the filtrate obtained is adapted to room temperature by pumping the filtrate to a non-isolated tank until room temperature has been attained.

Thus, as the combined references fails to teach or suggest this step, the rejection of claim 19 should be reversed.



**Claim 23**

Claim 23 further recites that the filtrate of claim 18 is further filtered over a series of micro filters before bottling.

As noted above relative to claim 18, the combination fails to teach or suggest adapting a filtrate to room temperature by pumping the filtrate to a non-isolated tank until room temperature has been attained.

Moreover, none of the cited references mention a further filtration step over a series of micro filters before bottling after room temperature has been achieved. JAMNIKOV conducts a final filtering step, followed by natural heating to ambient temperature and bottling (See Abstract). BOBRYSEV is silent to a bottling step relative to any cooling, heating or filtering step. FILIPPOVA simply "collects" purified ethyl alcohol solution after a final filter step below ambient, e.g., in claim 1 of FILIPPOVA.

Therefore, as this feature is neither disclosed nor suggested by the cited references, the rejection of claim 23 should be reversed.

**Conclusion**

From the foregoing discussion, it is believed to be apparent that the rejections on appeal are improper and should be

reversed. Such action is accordingly respectfully requested.

The Appeal Brief fee of \$540.00 is being paid online simultaneously herewith by credit card

If necessary, the Commissioner is hereby authorized in this, concurrent, and future submissions, to charge any underpayment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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January 3, 2011

RAM/jr

Enclosures: Claims Appendix

(viii)

**Claims Appendix**

10. A vodka comprising:  
a percentage of absolute alcohol in water of about 35-  
50 vol %,  
4-6 mM sugar,  
0.05 - 0.2 mM of bicarbonate,  
0.02-0.04 vol % of extract of flax seeds, and  
wherein said vodka has an amount of per liter of  
absolute alcohol in an amount as follows:  
acetic aldehyde lower than 3 mg,  
fusel oil lower than 6 mg,  
ester lower than 5 mg,  
methyl alcohol lower than 0.2 ml, and  
an alkalinity characteristic of less than 3 meq.

11. The vodka according to claim 10, wherein the vodka  
contains a percentage of absolute alcohol in water of about 40  
vol %, 5.3 mM of sugar, 0.12 mM of sodium bicarbonate, and 0.032  
vol % of extract of flax seeds.

12. A process for preparing vodka, comprising:  
mixing water and absolute alcohol to obtain a mixture,  
treating the mixture with activated coal,

adding sugar, aroma compounds and optionally other ingredients,

cooling the mixture to a temperature of about -10°C to -15°C, at which temperature the mixture is maintained for about 4-8 hours,

filtering the mixture,

adapting the mixture to room temperature to obtain a filtrate,

optionally adding other ingredients to the filtrate, and

optionally further filtering the filtrate at room temperature before bottling said filtrate.

13. The process according to claim 12, whereby the filtrate is adapted to room temperature by pumping the filtrate to a non-isolated tank until room temperature has been attained.

14. The process according to claim 12, whereby the aroma compounds comprise extract of flax seeds.

15. The process according to claim 12, whereby the water is water with an alkalinity of less than 3 meq/l.

16. The process according to claim 12, whereby the cooled mixture is filtered through a carbon filter.

17. The process according to claim 13, whereby the filtrate is further filtered over a series of micro filters before bottling.

18. A process for preparing vodka, comprising:  
mixing water and absolute alcohol to obtain a mixture,  
treating the mixture with activated coal followed by filtration, adding sugar, aroma compounds and optionally other ingredients to the mixture, wherein, the mixture after the treatment with activated coal is cooled to a temperature of about -10°C to -15°C, at which temperature the mixture is maintained for about 4-8 hours, after which the mixture is filtered, and gradually adapted to room temperature, optionally aroma and other ingredients are added to the mixture, and optionally the mixture is filtered again before bottling a resulting mixture.

19. The process according to claim 18, whereby the mixture is adapted to room temperature by pumping the mixture to a non-isolated tank until room temperature has been attained.

20. The process according to claim 18, whereby the aroma compounds comprise extract of flax seeds.

21. The process according to claim 18, whereby the water is water with an alkalinity of less than 3 meq/l.

22. The process according to claim 18, whereby the mixture is filtered through a carbon filter.

23. The process according to claim 19, whereby the mixture at room temperature is filtered over a series of micro filters before bottling.

**(ix)      Evidence Appendix**

None.

**(x)      Related Proceedings Appendix**

None.